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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/532,162

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Peter Bruce Darwood

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EXAMINER

LAM, DUNG LE

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

02/06/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/532,162		DARWOOD ET AL.	
	Examiner		Art Unit	
	DUNG LAM		2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-82 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-82 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim(s) **1-82** is/are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hosur** ("Design of Cyclically permutable Codes for PN code acquisition in WCDMA TDD Mode") in view of **3GPPTS25.213** (TS25.213 Spreading and Modulation, page 22-23).
2. Regarding **claim 1**, **Hosur** teaches an arrangement for producing a sequence of a predetermined length in a spread spectrum communication system, the arrangement comprising (Abstract):
 - Means for storing a plurality of predetermined sequences having lengths less than the predetermined length (16 secondary short codes SSC; wherein each SSC is made up of a sequence of codes of predetermine length; paragraph 2 of page 582);
 - Means for arranging the plurality of predetermined sequences in an indexed lis (the 16 SSCs ranging from S_1 to S_{16} thus are indexed);

- means for selecting at least two of the plurality of predetermined sequences from the indexed list (length 2 comma free code formed as [si, sk], last paragraph of page 582; and append sequence $S_1 S_2 S_3$ page 583-584); and
- means for concatenating the selected plurality of predetermined sequences to produce the sequence of the predetermined length (page 582; append sequence $S_1 S_2 S_3$ page 583-584).
- However, Hosur does not explicitly teach that sequence having lengths less than a predetermined length. The examiner notes that the SSC is known to have a length less than a predetermined length as evidenced by 3GPPTS25.213 (page 22 and 23). Therefore, it would have been obvious in the art that Hosur's teaching of the SSC to also the length that is less than a predetermined length so that Hosur's code would be compatible with standard systems.

3. Regarding **claim 2, Hosur and 3GPPTS25.213 teach** the arrangement of claim 1 wherein the means for selecting comprises: means for selecting a first sequence of the at least two of the plurality of predetermined sequences with an index value of n from the indexed list; and means for selecting each successive sequence of the at least two of the plurality of predetermined sequences with an index value incremented from that of the previously selected sequence from the indexed list ().

4. Regarding **claim 3, Hosur and 3GPPTS25.213 teach** the arrangement of claim 2 wherein the increment is a predetermined integer ({si,kj} means increment of 1; page 582).

5. Regarding **claim 4, Hosur and 3GPPTS25.213 teach** the arrangement of claim 3 wherein the predetermined integer is one of: 0, 1 and 2 (increment of 1; page 582).

6. Regarding **claim 6, Hosur and 3GPPTS25.213 teach** the arrangement of any one of claims 2-5 wherein n is determined from at least one of A-F: A initial cell parameter assignment, B system frame number (SFN), C chip rate of transmission, D predetermined length of spreading code (page 582-583), E identifier of intended receiver of data spread with the predetermined length spreading code, F channelisation code employed.

7. Regarding claims **12-17**, they are method claims having similar limitations that correspond to claims 1-5. Therefore, they are rejected for the same reasons as claims 1-5.

8. Regarding **claims 22-24**, they are claiming the same limitations as claim 1. Therefore, they are rejected for the same reasons as claim 1.

9. Regarding claim **25-27 and 54-57** are claims that have the same limitations as claim 6. Therefore it is rejected for the same reasons as claim 6.

10. Regarding claim **28-32 and 58-62** are claims that have the same limitations as claim 7. Therefore it is rejected for the same reasons as claim 7.

11. Regarding claim **33-38 and 63-68** are claims that have the same limitations as claim 8. Therefore it is rejected for the same reasons as claim 8.

12. Regarding claim **46-53 and 69-76** are claims that have the same limitations as claim 11. Therefore it is rejected for the same reasons as claim 11.

13. Regarding claim **77 and 80, Hosur and 3GPPTS25.213 teach** the apparatus of claim 1, wherein first sequence comprises a length and N. Both sequences have the same length.

14. Regarding claim 78 and 81, **Hosur and 3GPPTS25.213 teach** the apparatus of claim 77, wherein M equals N. Both sequences have the same length.

15. Regarding **claim 5, Hosur and 3GPPTS25.213 teach** the arrangement of claim 2 except wherein the increment is randomly chosen for each successive sequence. However, the examiner takes official notice that it is known in the art to use the concept of using a random number to create a more secure and harder for an interceptor to decode the signal. Therefore, it would have been obvious for one of ordinary skill in the art to chose a random increment to provide more security.

16. Regarding claim 79 and 82, **Hosur and 3GPPTS25.213 teach** apparatus of claim 77, except wherein M is not equal to N. However, the examiner takes official notice that N is not equal to M is a design choice.

Citation of Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dent (US 5742678) teaches the multiple access code technique.

Li (US Pub. 2002/0122463) teaches a method of extending codes.

Response to Arguments

Applicant's arguments with respect to claims 1-82 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DUNG LAM whose telephone number is (571) 272-

6497. The examiner can normally be reached on M - F 9 - 5:30 pm, Every Other Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Harper can be reached on (571) 272-7605. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/VINCENT P. HARPER/
Supervisory Patent Examiner, Art Unit 2617